

BILL NO. R-91-11-16

RESOLUTION NO. R- 67-91

A RESOLUTION approving the City of
Fort Wayne's Repetitive Loss Plan.

WHEREAS, the City of Fort Wayne is participating in
the National Flood Insurance Program's Community Rating
System;

WHEREAS, the Division of Community of Economic
Development has submitted a Repetitive Loss Plan in
accordance with the Community Rating System requirements.


WHEREAS, the proposed Repetitive Loss Plan is in the
best interest of the City of Fort Wayne and the citizens
thereof.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL
OF THE CITY OF FORT WAYNE, INDIANA:

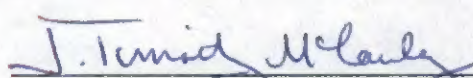
Section 1. The Fort Wayne Common Council supports
the efforts of the Mayor and the Division of Community and
Economic Development in preparing a comprehensive Repetitive
Loss Plan.

Section 2. That the Repetitive Loss Plan is hereby
approved and adopted by the Common Council.

Section 3. That this Resolution shall be in full
force and effect from and after its passage and any and all
necessary approval by the Mayor.


Councilmember

APPROVED AS TO FORM AND LEGALITY


J. Timothy McCaulay, City Attorney

Read the first time in full and on motion by Dir Juntas, seconded by Edmonds, and duly adopted, read the second time title and referred to the Committee on Finance (and the City Plan Commission for recommendation) and Public Hearing to be held after due legal notice, at the Council Conference Room 128, City-County Building, Fort Wayne, Indiana, on _____, 19____, at _____ o'clock _____ M., E.S.

DATED: 11-12-91

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Read the third time in full and on motion by Dir Juntas, seconded by Redd, and duly adopted, placed on its passage. PASSED LOST by the following vote:

	AYES	NAYS	ABSTAINED	ABSENT
TOTAL VOTES	<u>9</u>			
BRADBURY	<u>✓</u>			
BURNS	<u>✓</u>			
EDMONDS	<u>✓</u>			
GIAQUINTA	<u>✓</u>			
HENRY	<u>✓</u>			
LONG	<u>✓</u>			
REDD	<u>✓</u>			
SCHMIDT	<u>✓</u>			
TALARICO	<u>✓</u>			

DATED: 11-26-91

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne, Indiana, as (ANNEXATION) (APPROPRIATION) (GENERAL) (SPECIAL) (ZONING MAP) ORDINANCE RESOLUTION NO. 09-67-91 on the 26th day of November, 1991.

Sandra E. Kennedy ATTEST
SANDRA E. KENNEDY, CITY CLERK

SEAL
Samuel J. Talarico
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on the 27th day of November, 1991 at the hour of 2:00 o'clock _____ M., E.S.T.

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Approved and signed by me this 2nd day of December 1991, at the hour of 12:30 o'clock P M., E.S.T.

11611
PAUL HELMKE, MAYOR

BILL NO. R-91-11-16

REPORT OF THE COMMITTEE ON FINANCE

MARK E. GIAQUINTA, CHAIRMAN
DONALD J. SCHMIDT, VICE CHAIRMAN
BRADBURY, REDD, BURNS

WE, YOUR COMMITTEE ON FINANCE TO WHOM WAS
REFERRED AN (~~ORDINANCE~~) (RESOLUTION) approving the City of
Fort Wayne's Repetitive Loss Plan

HAVE HAD SAID (~~ORDINANCE~~) (RESOLUTION) UNDER CONSIDERATION
AND BEG LEAVE TO REPORT BACK TO THE COMMON COUNCIL THAT SAID
(~~ORDINANCE~~) (RESOLUTION) _____

DO PASS

DO NOT PASS

ABSTAIN

NO REC

Mark E. Giaquinta

J. Bradbury

Don J. Schmidt

D. Schmidt

DATED: 11-26-91

Sandra E. Kennedy
City Clerk



MEMORANDUM

TO: Members of City Council

FROM: Greg Purcell *[Signature]* Director of Community and Economic Development

DATE: November 12, 1991

SUBJECT: Repetitive Loss Plan *D- 9711-16*

Attached is the Repetitive Loss Plan which is a prerequisite for submitting the 1992 Community Rating System application. Communities having ten or more properties that have made two or more claims of at least \$1,000 each since 1978 to the Federal Insurance Administration are classified as repetitive loss communities and must adopt such a plan. The Community Rating System (CRS) is a national flood program sponsored by the National Flood Insurance Program and the Federal Emergency Management Agency (FEMA). This program rewards communities such as Fort Wayne by giving reductions to property owners in the community who have flood insurance policies. As of October 1, 1991, Fort Wayne policy holders received a 5% reduction in their premium as a result of the City's involvement in the CRS. Policy holders will receive a 5% or 10% reduction in their premiums in 1992 depending upon the final evaluation of Fort Wayne's 1991 application.

The plan recommends long term flood mitigation programs such as public awareness activities and higher standard floodplain management policies that will reduce the hazards and costs of flooding to the residents of our community. The attached plan has been reviewed and approved by all of the local agencies participating in the CRS program. In addition, ISO Commercial Risk Services, Inc., who contracted with FEMA for program management, has reviewed and approved of the plan as presented. Therefore, we respectfully request approval by the City Council of the attached Repetitive Loss Plan.

GP/nt

Admn. Appr. _____

DIGEST SHEET

TITLE OF ORDINANCE REPETITIVE LOSS PLAN RESOLUTION

DEPARTMENT REQUESTING ORDINANCE COMMUNITY & ECONOMIC DEVELOPMENT

SYNOPSIS OF ORDINANCE COMMITTS CITY TO FOLLOW THE REQUIREMENTS

SET FORTH BY THE NATIONAL FLOOD INSURANCE PROGRAM'S COMMUNITY

RATING SYSTEM

Q-97-11-16

EFFECT OF PASSAGE CITY WILL BE IN COMPLIANCE WITH THE

COMMUNITY RATING SYSTEM REGULATIONS

EFFECT OF NON-PASSAGE CITY COULD NOT PARTICIPATE IN THE

COMMUNITY RATING SYSTEM

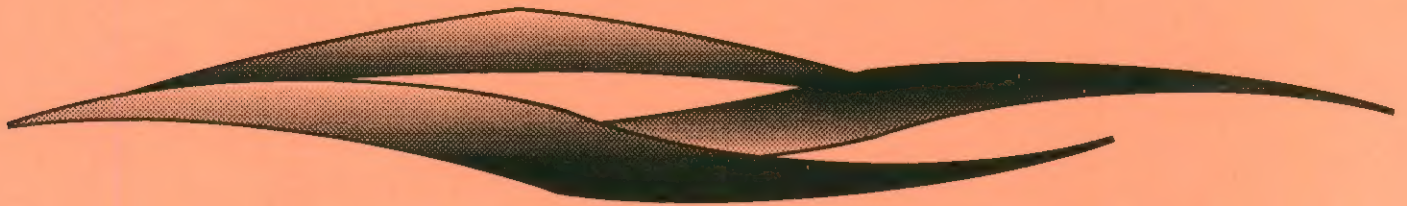
MONEY INVOLVED (DIRECT COSTS, EXPENDITURES, SAVINGS) REPETITIVE

LOSS PLAN WILL BE AVAILABLE PRIOR TO PASSAGE

ASSIGNED TO COMMITTEE (PRESIDENT) _____

CITY OF FORT WAYNE

REPETITIVE LOSS PLAN



NATIONAL FLOOD INSURANCE PROGRAM
COMMUNITY RATING SYSTEM



Paul Helmke, Mayor

1 9 9 2

ADMINISTRATION AND POLICY DIRECTION

Paul Helmke
Mayor
City of Fort Wayne

Greg Purcell, Director
Community and Economic Development

Michael A. Sapp
Director of Planning

PRINCIPAL STAFF CONTRIBUTORS

Carl O'Neal, Director of Transportation
Gary Stair, Senior Planner
Lisa Minnick, Planner I
Nancy Townsend, Planner I

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INTRODUCTION

Fort Wayne is located at the junction of the St. Mary's and St. Joseph Rivers, which form the headwaters of the Maumee River. At one time these rivers served as a great economic asset to the City in that they provided a major source of transportation for commercial goods. But as the railroads and interstate highways were built, the rivers lost much of their importance.

By the mid 1800s the construction of the Wabash-Erie Canal, as well as the railroads, increased the convenience of moving goods through the area. This led to the expansion of Fort Wayne. As the community grew, much development took place within flood prone areas. As a result, the rivers became a liability as numerous floods occurred throughout the 19th and 20th centuries. Throughout the years, much has been done to protect these properties. Numerous dikes and levees have been constructed along the rivers. However, many properties, both in partially protected areas as well as in unprotected areas, still experience repetitive damage. Therefore, a plan designed to reduce flooding and to promote community awareness in repetitive loss areas will help protect properties and save money needed to fight the community's periodic floods.

PROBLEM IDENTIFICATION

Fort Wayne's flooding problems are caused by increased water levels of its three rivers, the St. Mary's, the St. Joseph, and the Maumee, in addition to the Spy Run Creek and numerous ditches. Detailed information regarding area flooding such as velocities and base flood water surface elevations can be found in Appendix 1.

Because of its topography, which is characterized by flat plains to rolling hills of low relief, Fort Wayne experiences no flash flooding. Therefore, local flood warnings allow adequate time to alert those responding to approaching flood waters. Generally, serious flooding occurs due to heavy winter and spring rains accompanied by snow melt. The most serious floods have occurred when intensive frontal storms of long duration and widespread aerial extent take place over the St Joseph and St. Mary's River basins (FEMA, Sept. 1990, p. 7).

Since 1907, when extensive records were first kept, the Maumee River has reached flood stage in all but eight years. Fifteen feet is the official flood stage of the Maumee River. In 41 of the last 84 years, Fort Wayne experienced minor flooding in which river levels reached anywhere from 15 to 19 feet in depth. When the river reaches 19 feet, at which time flooding is considered to be moderate, the City opens its Emergency Operations Center. Fort

Wayne experienced moderate flooding in 7 out of the last 84 years. Finally, when river levels reach 20 feet, Fort Wayne is considered to be experiencing major flooding. Since 1907, there have been 28 years in which Fort Wayne's rivers reached major flood status (See Appendix 2).

The worst flood ever recorded in Fort Wayne's history was that which occurred in March of 1913. This flood was equal to a 500 year flood on the St. Joseph River, a greater than 500 year flood on the St. Mary's River, and equal to a 50 year flood on the Maumee River (FEMA, Sept. 1990, p. 8). The Flood was the result of a severe frontal storm which lasted from March 23 to March 27. The Maumee River crested at 26.1 feet, 11.1 feet above official flood stage.

The second most severe flood recorded in Fort Wayne occurred in March of 1982. This flood was the result of several inches of snow melt and above-normal precipitation. The Maumee River crested at 25.73 feet, just slightly less than the 1913 flood. This flood was equal to a 140 year flood on the St. Joseph River, a 35 year flood on the St. Mary's River, and a 80 year flood on the Maumee River.

Out of the five largest floods ever recorded in Fort Wayne's history, four have occurred since 1978. Since 1978, the National Flood Insurance Program (NFIP) has paid out a total of \$2.5 billion to cover losses throughout the country (FEMA, Oct. 1990, p. 110-1). Today, there are over two billion structures insured by the NFIP. Less than 3 percent of these structures account for 40

percent of insurance losses. This is due to the fact that many of the same properties have been flooded more than once since 1978 (FEMA, Oct. 1990, p. 510-1).

Because such a small number of properties have a tremendous impact on the NFIP, those communities involved in the Community Rating System (CRS) that have repetitive loss properties are required to adopt a Repetitive Loss Plan. According to the Federal Emergency Management Agency (FEMA), a repetitive loss property is one for which two or more NFIP losses of at least \$1,000 each have been paid since 1978. FEMA requires that these properties be plotted and that repetitive loss areas, those areas with buildings that have flooded two or more times since 1978, be identified. The Repetitive Loss Plan addresses flood-related concerns within these identified areas.

This plan in no way limits the City to undertake flood control projects and programs in the repetitive loss areas only. For a more comprehensive flood mitigation plan, refer to the 1991 24-month Work Program in addition to contacting City and other local agency flood control coordinators.

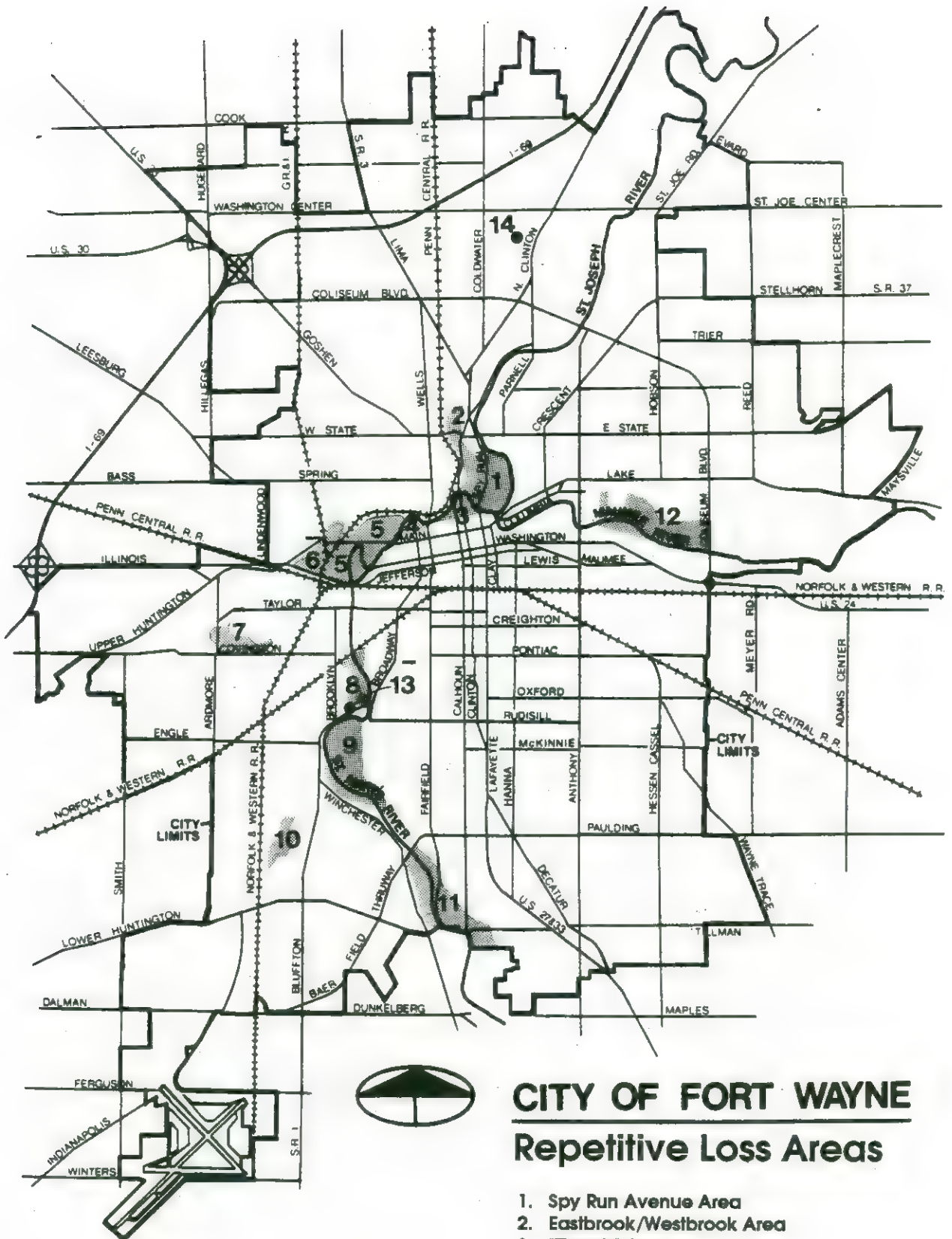
Finally, a public meeting was held on September 19, 1991 to receive citizen input concerning the Repetitive Loss Plan. A brief overview of the Community Rating System was presented to those property owners attending the meeting. In addition, the contents of the plan were discussed by the CRS coordinator. Other flood mitigation coordinators were on hand to address any questions or comments the property owners had regarding flood control projects.

REPETITIVE LOSS AREA INVENTORY

There are 46 repetitive loss properties in the City of Fort Wayne. After plotting each property on topographical maps, 14 areas were defined as repetitive loss areas. Structures included in repetitive loss areas are those which are of the same or lesser elevation as the individual repetitive loss properties and are subject to similar flooding conditions. Below is a description of the fourteen repetitive loss areas. On the following page is a map showing each repetitive loss area.

1. The **Spy Run Avenue Area**, which is located just to the north of the central business district, contains 19 repetitive loss properties. These 19 properties represent approximately 41 percent of the total number of repetitive loss properties in the City of Fort Wayne. This area experiences flooding from all three rivers in addition to the Spy Run Creek. Depending on the severity of flooding, a large portion of this area is partially protected by flood mitigation devices.

There are approximately 619 insurable structures within this repetitive loss area: 404 residential, 47 non-residential, and 168 accessory structures. The elevations of the structures range from 752 feet to 757 feet. Actual building elevations for all repetitive loss properties can be seen in Appendix 3. Because of



CITY OF FORT WAYNE

Repetitive Loss Areas

1. Spy Run Avenue Area
2. Eastbrook/Westbrook Area
3. "Thumb" Area
4. Ross/Michaels Area
5. Nebraska Area
6. Jefferson Blvd./Junk Ditch Area
7. Filmore/Junk Ditch Area
8. Vesey/Gruber Area
9. Foster Park Area
10. Belle Vista Area
11. Fairfield/Tillman Area
12. Dwenger Area
13. Bluffton Road Property
14. Northcrest Drive Property

the Privacy Act, however, only street names are given. There are critical facilities located within this repetitive loss area, including the Water Filtration Plant and the Lawton Nursing Home. A critical facility as defined by FEMA is any property that, if flooded, would result in severe consequences to public health and safety.

2. The **Eastbrook/Westbrook Area** is located along the Spy Run Creek to the east of the Spy Run Avenue Area. Flooding of this area is the result of an increase in water levels of the Spy Run Creek. There are 3 repetitive loss properties located here. Also, the area contains approximately 134 insurable structures: 86 residential and 48 accessory structures. The elevations of these structures range from 755 feet to 759 feet. Although this area is actually a continuation of the Spy Run Avenue Area, it is considered separate because of unique flood mitigation efforts as well as the impact of proposed future projects. Clinton Street was used to separate the two areas.

3. The **"Thumb" Area** is located along the St. Mary's River in the Central Business District. This repetitive loss area includes not only the "Thumb", but also several properties to the west. There are six repetitive loss properties located here. Elevations for these structures can be found in Appendix 3. This area experiences flooding from the St. Mary's River. There are approximately 38 insurable structures located within this area:

34 non-residential, and 4 accessory structures. The elevations of these buildings range from 754 feet to 756 feet. One critical facility, the Three Rivers Ambulance Authority, is located in the "Thumb" Area. During major floods the Ambulance Authority building as well as all surrounding streets become inundated making normal operation difficult. In addition, the National Guard Armory and the Allen County Jail are located in the repetitive loss portion of the "Thumb".

4. The **Ross/Michaels** neighborhood has also been identified as a repetitive loss area. This area contained four repetitive loss properties. One of these properties, however, no longer exists. The building was razed and the lot remains vacant. Therefore, there are three repetitive loss properties with insurable structures. This area experiences flooding from the St. Mary's River. There are approximately 68 insurable structures located here : 52 residential, 3 non-residential, and 13 accessory structures. The elevations of these buildings range from 754 feet to 756 feet.

5. The **Nebraska Area** is located along the St. Mary's River north of Swinney Park. This area experiences flooding from the St. Mary's River and a portion of the Junk Ditch. There are 4 repetitive loss properties located here. The entire area is comprised of approximately 625 insurable structures: 408 residential, 75 non-residential, and 142 accessory structures.

Building elevations range from 754 feet to 758 feet. There are existing levees protecting most of this area. However, the height of these levees will not protect up to a 100 year flood. In addition, portions of the earthen levee leak causing adjacent properties to experience inundation when river levels reach moderate flood stage.

6. The **Jefferson Boulevard/Junk Ditch Area** is located just north of Jefferson Boulevard in western Fort Wayne. Flooding in this area is the result of excess water in the Junk Ditch. The Junk Ditch is unique in that flows are reversed during times of high water levels on the St. Mary's River (FEMA, Sept. 1990, p.13). There are 4 non-residential properties located within this area. Only one is a repetitive loss property. All 4 structures have an elevation of 755 feet.

7. The **Filmore/Junk Ditch Area** is also located in western Fort Wayne. Similar to the Jefferson Boulevard Area, this area experiences flooding as a result of excess water in the Junk Ditch. There is one repetitive loss property located here. In addition, there are a total of 36 insurable structures in this area: 24 residential, 1 non-residential, and 11 accessory structures. The elevations of these buildings range from 753 feet to 755 feet.

8. The **Vesey/Gruber Area** is located along the St. Mary's River just north of Foster Park. Flooding in this area is the

direct result of increased water levels of the St. Mary's River. There is one repetitive loss property located here. The area contains approximately 143 insurable structures: 91 residential, 2 non-residential, and 50 accessory structures. Structure elevations range from 756 feet to 760 feet.

9. The **Foster Park Area** is comprised of the majority of Foster Park and a few structures south of the park along the St. Mary's River. The St Mary's River is the source of floodwater for this area. There are approximately 23 insurable structures located here: 8 residential, 3 non-residential, and 12 accessory structures. Of these, one is a repetitive loss property. The elevations of these structures range from 757 feet to 760 feet.

10. The **Belle Vista Area** is located along the Fairfield Ditch in southwestern Fort Wayne. The Fairfield Ditch which is the direct source of flooding to the area drains into the St. Mary's River. There is one repetitive loss property located here. The entire area contains approximately 136 structures: 123 residential and 13 accessory structures. The elevations of buildings in this area range from 259 feet to 262 feet.

11. The **Fairfield/Tillman Area** is located along the St. Mary's River in southern Fort Wayne. There are 3 repetitive loss properties located here. Although the area is fairly large, there are only 33 insurable structures within it: 22 residential, 6 non-

residential, and 7 accessory structures. A sizeable amount of the land is developed as a golf course. The elevations of the structures within this area range from 762 feet to 764 feet. There is, however, one structure in this area which has an elevation of greater than 764 feet. This structure receives flooding only in its underground parking area. The elevation of the entrance to the parking area is such that surface water may enter during flooding. The remainder of the structure is unaffected.

12. The Dwenger Area is located along the Maumee River near the water pollution control plant but does not include the plant. Much of the area along the Maumee River floods. However, development is very limited, especially to the north of the river. This repetitive loss area contains 2 insurable structures, one being a repetitive loss property. The building elevations are approximately 750 feet.

All areas previously mentioned lie within the Special Flood Hazard Area (SFHA) as determined by the Flood Insurance Rate Maps (FIRM). The actual elevations for each of the repetitive loss properties in those areas are lower than the base flood elevations (BFE's) for those areas. However, there are two repetitive loss properties which have elevations higher than the BFE's and in turn are not part of the SFHA. One property is located along Bluffton Road (13) and the other is on Northcrest Drive (14). The circumstance for which both of these have become repetitive loss

properties was due to flooding caused by sewage back up. Since their previous claims, the problems have been corrected and they no longer experience flooding. Therefore, repetitive loss areas have not been defined for these properties because the City is currently taking steps to have these properties removed from FEMA's list of repetitive loss properties.

There are local development constraints for the entire Special Flood Hazard Area (SFHA). All repetitive loss areas located within the SFHA are subject to these constraints. No new structures and enlargements or expansions are permitted within the floodway area. Any new development of a structure within the floodway fringe or any one time improvement to a structure exceeding 40 percent its preconstruction value is subject to higher regulatory standards.

POTENTIAL FLOOD CONTROL PROJECTS

Because of Fort Wayne's history of flooding and the exorbitant costs it has incurred throughout the years, the City has been very active in pursuing and lobbying for funding for flood control projects and adopting more effective floodplain management policies. This effort has included working with federal agencies such as the Federal Emergency Management Agency, Region 5, the U.S. Army Corps of Engineers and the National Weather Service. The City has also worked with other agencies, including the Indiana Department of Natural Resources, the Maumee River Basin Commission, the Headwaters Park Commission and Allen County.

Flood control projects such as levees, floodwalls and channel improvements are needed in Fort Wayne. Projects like these have been undertaken in the past, however, flooding is still a costly problem for the City and its residents. Over 4,600 structures remain in the City's floodplain, 1,861 of which are in Repetitive Loss Areas.

FLOOD CONTROL PROJECTS

1. Army Corps Diking Project

The Army Corps of Engineers studied Fort Wayne's Repetitive Flooding Problems. They have proposed a \$40 million diking project to be constructed in Fort Wayne along the St. Mary's, St. Joseph

and Maumee Rivers and along Spy Run Creek. This project would consist of constructing over 53,000 feet of new and upgraded levees. Although this project would remove 74 percent of Fort Wayne's Repetitive Loss Area from the floodplain (Appendix 4), securing the funding for this multi-million dollar project may be difficult. Therefore, construction may be delayed for a number of years. While \$30 million is required from the Federal Government, the remaining \$10 million must come from local sources.

2. Headwaters Park

The Headwaters Park Commission is involved in obtaining funding for the acquisition of properties in Fort Wayne's "Thumb Area." The Headwaters Park project would include purchasing and demolishing structures located in a Repetitive Loss Area in Fort Wayne's Central Business District (Appendix 5). The open space created after demolition would be developed into an urban park area. The resources required to mitigate flooding and pay for flood-related damages within this area would be reduced substantially if this area becomes open space. The projected cost of this project is \$10 million. Funding would come from the State of Indiana, Allen County and from the private sector. The City has been assisting the Commission with this project.

3. Maumee River Widening

Another local commission, the Maumee River Basin Commission (MRBC) coordinates flood control projects in a five county area in

Northeastern Indiana. Allen County is included in this area. The MRBC is currently involved in an \$8.6 million river widening project. This project involves widening and cleaning a four mile section of the Maumee River, lowering the 100-year crest levels of the rivers by approximately 1.3 feet. Upon completion of the project, the Repetitive Loss Areas of Vesey/Gruber and Belle Vista will be protected an additional 1.5 feet relative to the severity of the flood (Appendix 6). Phase 1 of this two-phased project was completed in July of 1991. Phase 2 will be completed in November of 1991. Funding for this project will come from the State of Indiana.

4. Confluence Area

The State of Indiana has also studied Fort Wayne's flooding problems and has suggested that improvements be made in the channels at the confluence of the St. Mary's and St. Joseph Rivers. This project would increase the flow of water by removing debris which has caused water to back-up and flood over the banks. The crest level of the rivers would also be lowered with these improvements. The completion of this project would reduce the amount of flooding in several Repetitive Loss Areas. The initiation of this \$300,000 project is contingent upon State funding, which has not yet been budgeted.

5. Eastbrook/Westbrook Floodwalls

The City of Fort Wayne has completed a feasibility on the construction of a floodwall in the Eastbrook/Westbrook Repetitive Loss Area. A wall would be constructed along the property lines and would include movable gates that would be inserted at driveways and streets during flooding. The projected cost of this project is in excess of \$340,000.

PROPERTY ACQUISITION

Many residents in Repetitive Loss Areas have expressed an interest in selling their properties to escape the costs and inconveniences of flooding. The City may have funds available to purchase properties located in Repetitive Loss Areas. Because the acquisition and demolition of properties would be costly, the purchasing of a large number of homes each year would be unlikely. However, it may be possible to purchase two to five properties each year.

PROPERTY PROTECTION

The MRBC is developing a Floodproofing Program which will be available to property owners in RLAs. This cost/share program will provide information on floodproofing techniques as well as financial assistance to eligible property owners. Currently, \$120,000 has been budgeted for this program from the Build Indiana Fund.

EMERGENCY SERVICES

Residents have also expressed the desire to receive information about flood fighting techniques such as sandbagging and diking so they can reduce or eliminate damages to their property caused by floodwaters. Fort Wayne's Flood Warning System allows City Officials to predict a flood up to 72 hours in advance. Therefore pre-flood mitigation can reduce flood damage substantially.

FLOODPLAIN MANAGEMENT

The City does not have the authority to inspect or maintain the legal drains and ditches within the city limits. The County Surveyor has jurisdiction over the legal ditches, drains, and tributaries throughout the county. Currently, there is no regimented program for inspection and cleaning. Generally, action is taken, providing money is available, when the department receives calls from concerned residents. Ditch cleaning could lessen the degree of flooding in several RLAs. The Junk Ditch area which is a relatively flat area that sustains significant flood damage and the Fairfield Ditch area which also floods frequently are two such RLAs that would be aided by ditch cleaning.

Fort Wayne does not have any restrictions for critical facilities locating in repetitive loss areas or in the floodplain. Restricting critical facility developments in flood prone areas not only improves their service ability but also heightens the

community's awareness for the importance of floodplain management. The Three Rivers Ambulance Authority, Fort Wayne's only ambulance authority, is located in the Repetitive Loss Area known as "The Thumb." This facility has been surrounded by water in every moderate to major flood in Fort Wayne. If the Ambulance Authority were located outside of the floodplain, flooding of the facility would not be a factor affecting normal operating procedures.

A policy regulating open space in the floodplain would prevent development that would increase the regulatory flood elevation or obstruct the flow of water in these areas. Approximately 12% of Fort Wayne's floodplain is open space. As this percentage increases with the acquisition of properties and the demolition of structures, a policy regulating development in these areas will decrease the cost of flood-fighting for the City, as well as, individual property owners.

SELECTED CONTROL FLOOD PROJECTS

1. Send a representative from the City with individuals from the Army Corps of Engineers to Washington D.C. to pursue funding for the allocation of funds for the \$40 million Army Corps Diking Project. The City's Flood Coordinator will go to Washington D.C. in 1992.
2. Assist the Maumee River Basin Commission in the Maumee River Widening Project by securing right-of-ways and providing land use information. This will be the responsibility of the Board of Public Works and the Planning Department. The widening project will be completed by May 1992.
3. The Maumee River Basin Commission, through their annual Floodproofing Program, will help selected property owners by sharing the cost of constructing flood mitigation devices.
4. Purchase properties in Fort Wayne's Repetitive Loss Areas. Community Development Block Grant monies will be used to fund this project. This will include acquisition, demolition and occupant relocation. The Department of Community and Economic Development will coordinate this project.

5. Provide assistance to Headwaters Park Commission. Assistance may be in the form of land-use planning, data collection, and/or pursuing funding. The City's Department of Community and Economic Development will continue to assist the Commission annually.

6. Provide annual workshops for property owners in the floodplain which includes Repetitive Loss Areas. These workshops are designed to educate citizens about flood preparedness and flood fighting techniques such as sandbagging and pumping. Also, review the flood warning system with area property owners. A qualified engineer who is familiar with the specific neighborhood will be available to answer questions. These workshops should be completed by March 15 of each year before the spring storm season begins. The City Flood Coordinator and the Maumee River Basin Commission will coordinate this project.

7. Mail an annual notice to property owners in the floodplain which includes Repetitive Loss Areas. This notice will include information about the flood hazard, warning system, the importance of maintaining flood insurance and the number and name of a contact person for more information. This mailing should be completed by March 1 of each year. The CRS Coordinator along with Administrative Services will be responsible for this activity.

8. Adopt a Drainage and Sediment Control Ordinance. This ordinance will be produced by the Water Pollution Control Department and should be adopted by December of 1992.

9. The City Planning Department will draft a Critical Facilities Ordinance which would be an amendment to the City's Zoning Ordinance. The draft will be prepared by December of 1994.

10. The City Planning Department will draft a policy regulating development in open space areas in the City's floodplain. The draft will be prepared by December of 1994.

The following is a table of potential and proposed projects for each of the repetitive loss areas. Those projects listed as "proposed" will be implemented or undertaken by the City and other agencies involved in flood awareness and mitigation. Those listed as "potential" are projects which the City and other agencies are planning on doing. However, at the time this plan was written there was not complete certainty that the "potential" projects would be carried out due to various reasons such as unavailable funding.

REPETITIVE LOSS AREA	POTENTIAL PROJECTS	PROPOSED PROJECTS
Spy Run Avenue Area	Army Corp diking project Confluence Area channel improvements Floodproofing program	Workshops Mailings Property acquisition*
Eastbrook/Westbrook Area	Floodwall construction Floodproofing program	Workshops Mailings Property acquisition*
The "Thumb" Area	Headwaters Park	Assist Headwaters Park Commission Remove critical facility Workshops Mailings Property acquisition*
Ross/Michaels Area	Floodproofing program Headwaters Park	Assist Headwaters Park Commission Workshops Mailings Property acquisition*
Nebraska Area	Army Corp diking project Minor dike repairs Ditch cleaning Floodproofing program	Workshops Mailings Property acquisition*

* Selected properties for each area will be considered for acquisition. Because of limited funding, not all properties considered will be purchased.

REPETITIVE LOSS AREA	POTENTIAL PROJECTS	PROPOSED PROJECTS
Jefferson Boulevard/Junk Ditch Area	Ditch Cleaning	Workshops Mailings
Filmore/Junk Ditch Area	Ditch cleaning Floodproofing program	Workshops Mailings Property acquisition*
Vesey/Gruber Area	Increase height of dike	Maumee River project Workshops Mailings
Foster Park Area	Ditch cleaning Property acquisition Floodproofing program	Workshops Mailings
Belle Vista Area	Ditch cleaning Floodproofing program	Maumee River project Workshops Mailings

* Selected properties for each area will be considered for acquisition. Because of limited funding, not all properties considered will be purchased.

REPETITIVE LOSS AREA	POTENTIAL PROJECTS	PROPOSED PROJECTS
Fairfield/Tillman Area	Property acquisition Floodproofing program	Workshops Mailings
Dwenger Area	Workshops Mailings Floodproofing program	Workshops Mailings
Bluffton Raod property		Remove property from list
Northcrest Drive property		Remove property from list

Appendix 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
MAUMEE RIVER								
AA	128.93	1370 ³	7866	3.5	749.8	749.8	749.9	0.1
AB	129.08	1550 ³	12,330	2.2	750.1	750.1	750.2	0.1
AC	129.75	3172	34,496	0.8	750.5	750.5	750.6	0.1
AD	130.29	2661	24,819	1.1	750.6	750.6	750.7	0.1
AE	132.26	438	8228	3.3	752.8	752.8	752.9	0.1
AF	133.42	587	9536	2.8	754.3	754.3	754.4	0.1
AG	134.41	780	12,218	2.2	756.0	756.0	756.1	0.1
AH	134.81	410	10,798	2.5	756.3	756.3	756.4	0.1
AI	135.31	858	9819	3.1	758.7	758.7	758.8	0.1
AJ	135.82	301	7421	3.7	757.1	757.1	757.2	0.1
AK	136.14	410	8763	3.1	758.2	758.2	758.3	0.1
ST. MARYS RIVER								
AL	136.38 ²	285	5786	2.9	758.3	758.3	758.4	0.1
AM	137.01 ²	373	8251	2.6	758.7	758.7	758.8	0.1
AN	137.20 ²	212	3843	4.1	758.9	758.9	759.0	0.1
AO	137.90 ²	265	5305	2.9	759.8	759.8	759.7	0.1
AP	138.28 ²	494	6508	2.4	759.9	759.9	760.0	0.1
AQ	139.39 ²	181	3722	4.5	760.6	760.6	760.7	0.1
AR	139.83 ²	228	4630	3.5	761.2	761.2	761.3	0.1
AS	139.96 ²	588	8436	2.8	761.3	761.3	761.4	0.1
AT	140.69 ²	873	7591	2.2	762.1	762.1	762.2	0.1
AU	141.47 ²	1750	8137	2.1	762.9	762.9	763.0	0.1
AV	141.91 ²	1019	9438	1.6	763.5	763.5	763.6	0.1
AW	142.24 ²	1176	9089	1.7	763.8	763.8	763.9	0.1
AX	142.54 ²	483	5110	3.1	764.1	764.1	764.2	0.1
AY	142.75 ²	493	5216	3.0	764.4	764.4	764.5	0.1
AZ	142.96 ²	510 ³	4878	3.2	764.6	764.6	764.7	0.1

¹MILES ABOVE MOUTH
²MILES ABOVE MOUTH OF MAUMEE RIVER
³ADMINISTRATION FLOODWAY ESTABLISHED AT CROSS SECTION AT IDNR
 CROSS SECTIONS WITHIN CORPORATE LIMITS
 CROSS SECTIONS WITHIN REPETITIVE LOSS AREAS
 SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE*	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
ST. MARY'S RIVER								
BA	143.24	897*	7096	2.2	765.0	765.0	765.1	0.1
BB	143.82	893	5632	2.8	765.7	765.7	765.8	0.1
BC	144.54	1671	6687	2.3	766.8	766.8	766.9	0.1
BD	145.49	1427	9288	1.7	768.1	768.1	768.2	0.1
BE	146.46	1702	11,757	1.3	769.1	769.1	769.2	0.1
BF	147.60	1855	10,388	1.5	769.7	769.7	769.8	0.1
BG	147.49	1347	8643	1.8	770.4	770.4	770.5	0.1
BH	148.64	1289	9460	1.7	771.4	771.4	771.5	0.1
BI	149.81	1285	10,238	1.5	772.3	772.3	772.4	0.1
BJ	150.75	1704	12,081	1.3	773.0	773.0	773.1	0.1
BK	151.61	1183	9097	1.7	773.6	773.6	773.7	0.1
BL	152.23	1605	6087	2.3	774.1	774.1	774.2	0.1
BM	153.30	1950	8389	1.9	775.1	775.1	775.2	0.1
BN	153.77	1679	14,424	1.1	775.5	775.5	775.6	0.1
BO	154.12	1045	7152	2.2	775.6	775.6	775.7	0.1
BP	155.22	2039	19,512	0.8	776.6	776.6	776.7	0.1
BQ	155.60	1053	7569	2.1	776.6	776.6	776.7	0.1

*MILES ABOVE MOUTH OF MAUMEE RIVER

*ADMINISTRATIVE FLOODWAY ESTABLISHED AT CROSS SECTION BY IDNR



CROSS SECTIONS WITHIN CORPORATE LIMITS

CROSS SECTIONS WITHIN REPETITIVE LOSS AREAS

SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
ST. JOSEPH RIVER								
A ●	0.09	288	8116	2.8	757.9	757.9	758.0	0.1
B ●	0.46	280	6033	2.9	758.4	758.4	758.5	0.1
C ●	0.81	338	7396	2.3	758.7	758.7	758.8	0.1
D ●	1.00	444	9188	1.8	758.8	758.8	758.9	0.1
E ●	1.10	247	5282	3.3	758.9	758.9	759.0	0.1
F ●	1.33	167	3581	4.8	759.2	759.2	759.3	0.1
G ●	1.72	270	4770	3.6	760.0	760.0	760.1	0.1
H ●	1.96	577	6097	2.8	760.4	760.4	760.5	0.1
I ●	2.24	233	4866	3.8	761.0	761.0	761.1	0.1
J ●	2.72	564	6978	2.8	761.6	761.6	761.7	0.1
K ●	2.89	722	5994	2.9	762.9	762.9	763.0	0.1
L ●	3.03	386	5678	3.0	763.1	763.1	763.2	0.1
M ●	3.30	744	8200	2.1	763.5	763.5	763.6	0.1
N ●	3.69	580	6311	2.7	764.4	764.4	764.5	0.1
O ●	4.63	310	5267	3.3	765.3	765.3	765.4	0.1
P ●	5.33	631	6290	2.7	766.2	766.2	766.3	0.1
Q ●	5.70	714	6432	2.7	766.9	766.9	767.0	0.1
R ●	6.14	1478	8331	2.1	767.8	767.8	767.9	0.1
S ●	6.63	1316	11,850	1.5	768.5	768.5	768.6	0.1
T ●	7.50	1009	7259	2.4	768.7	768.7	768.8	0.1
U ●	8.41	1289	9530	1.8	770.0	770.0	770.1	0.1
V ●	9.43	409	4711	3.7	771.5	771.5	771.6	0.1
W ●	9.93	556	4349	4.0	772.5	772.5	772.6	0.1
X ●	10.72	984	7670	2.2	774.2	774.2	774.2	0.0
Y ●	11.35	1775	10,799	1.6	775.1	775.1	775.2	0.1
Z ●	12.22	2099	15,288	1.1	775.8	775.8	775.9	0.1

¹MILES ABOVE MOUTH

 CROSS SECTIONS WITHIN CORPORATE LIMITS
 CROSS SECTIONS WITHIN REPETITIVE LOSS AREAS
 SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
SPY RUN CREEK								
A ●	0.89	160	760	3.1	758.1	758.1	758.2	0.1
B ●	1.11	170	858	2.7	760.3	760.3	760.3	0.0
C ●	1.37	89	496	4.7	762.5	762.5	762.6	0.1
D ●	1.47	266	868	2.7	763.3	763.3	763.4	0.1
E ●	1.81	260	837	3.7	765.1	765.1	765.1	0.0
F ●	1.81	48	302	7.8	768.2	768.2	768.3	0.1
G ●	1.84	275	788	3.1	769.1	769.1	769.1	0.0
H ●	2.00	250	529	4.4	770.0	770.0	770.0	0.0
I ●	2.10	259	1384	1.7	772.1	772.1	772.1	0.0
J ●	2.25	540	2121	1.1	772.7	772.7	772.8	0.1
K ●	2.73	540	2034	1.2	775.8	775.8	775.9	0.1
L ●	2.80	195	831	2.8	776.0	776.0	776.1	0.1
M ●	3.16	146	790	2.2	779.0	779.0	779.1	0.1
N ●	3.71	455	1372	1.2	784.2	784.2	784.3	0.1
O ●	3.99	281	1030	1.6	787.4	787.4	787.5	0.1
P ●	4.21	85	502	2.9	791.0	791.0	791.1	0.1
Q ●	4.50	180	634	2.3	796.2	796.2	796.2	0.0
R ●	4.71	180	810	1.5	796.4	796.4	796.5	0.1
S ●	4.96	305	1136	1.1	798.2	798.2	799.2	0.0
T ●	5.28	340	1183	1.1	800.3	800.3	800.4	0.1
U ●	5.39	270	888	2.1	801.3	801.3	801.4	0.1
V ●	5.97	136	366	2.2	805.1	805.1	805.2	0.1
W ●	6.25	370	1173	0.7	811.1	811.1	811.2	0.1
X ●	6.79	39	94	5.9	819.0	819.0	819.1	0.1
Y ●	6.98	158	331	1.7	823.4	823.4	823.5	0.1
Z ●	7.15	65	194	2.8	825.9	825.9	826.0	0.1

¹MILES ABOVE MOUTH

 CROSS SECTIONS WITHIN CORPORATE LIMITS
 ● CROSS SECTIONS WITHIN REPETITIVE LOSS AREAS
 SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE*	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
FAIRFIELD DITCH								
A	0.37	69	628	5.1	762.6	759.9*	759.0	0.1
B	0.41	51	407	7.9	762.6	758.9*	759.0	0.1
C	0.60	712	1912	1.7	762.6	762.6*	762.6	0.1
D	1.11	1026	4815	0.7	763.0	763.0	763.1	0.1
E	1.45	1200	436	7.3	763.1	763.1	763.2	0.1
F	1.81	1310	2389	0.8	764.5	764.5	764.6	0.1

*MILES ABOVE MOUTH OF FAIRFIELD DITCH

*MILES ABOVE MOUTH OF THE ST. MARY'S RIVER

● CROSS SECTIONS WITHIN REPETITIVE LOSS AREAS

SOURCE: FEDERAL EMERGENCY MANAGEMENT AGENCY

■ CROSS SECTIONS WITHIN CORPORATE LIMITS

Appendix 2

MAUMEE RIVER AT FORT WAYNE OFFICIAL FLOOD STAGE 15 FT. HIGHEST GAGE HEIGHT PER YEAR

Water Year	Date	Gage Height (Ft.)		Water Year	Date	Gage Height (Ft.)
1907	12-30-07	18.80		1944	04-12-44	20.82
1908	03-08-08	22.50		1945	05-18-45	17.40
1909	02-25-09	19.70		1946	06-14-46	13.70
1910	03-04-10	17.50		1947	06-04-47	17.00
1911	04-21-11	14.60		1948	03-23-48	17.30
1912	04-02-12	21.00		1949	02-17-49	18.30
1913	03-26-13	26.10		1950	02-16-50	21.15
1914	05-13-14	18.70		1951	02-24-51	19.10
1915	02-13-15	16.00		1952	01-28-52	18.20
1916	01-06-16	20.60		1953	03-04-53	15.30
1917	04-06-17	18.60		1954	01-15-54	16.50
1918	02-15-18	20.50		1955	03-06-55	18.00
1919	03-18-19	21.70		1956	03-02-56	17.50
1920	04-23-20	21.50		1957	04-11-57	19.20
1921	03-29-21	16.80		1958	06-14-58	15.20
1922	04-01-22	19.40		1959	02-12-59	21.30
1923	03-17-23	19.30		1960	02-11-60	17.20
1924	03-31-24	19.20		1961	04-28-61	18.58
1925	03-15-25	19.70		1962	03-23-62	16.00
1926	04-09-26	20.00		1963	03-09-63	15.86
1927	12-03-27	17.80		1964	04-22-64	15.52
1928	02-16-28	14.00		1965	02-11-65	16.15
1929	12-18-29	16.50		1966	02-10-66	21.23
1930	01-15-30	22.40		1967	12-22-67	20.40
1931	04-04-31	6.90		1968	02-04-68	21.10
1932	01-18-32	15.10		1969	01-31-69	21.18
1933	05-12-33	17.20		1970	04-21-70	16.43
1934	03-31-34	11.70		1971	02-21-71	16.11
1935	05-07-35	12.80		1972	04-24-72	17.23
1936	12-27-36	21.00		1973	03-19-73	15.71
1937	01-18-37	17.80		1974	01-23-74	20.85
1938	04-11-38	18.50		1975	02-26-75	16.60
1939	03-14-39	18.10		1976	02-20-76	21.43
1940	03-05-40	14.10		1977	12-31-77	18.34
1941	06-14-41	7.30		1978	03-24-78	23.76
1942	12-29-42	16.50		1979	03-05-79	20.48
1943	05-19-43	22.24				

Major Floods 20 ft. to 26.1 ft.

Water Year	Date	Gage Height (Ft.)		Water Year	Date	Gage Height (Ft.)
1908	03-08-08	22.50		1967	12-22-67	20.40
1912	04-02-12	21.00		1968	02-04-68	21.10
1913	03-26-13	26.10		1969	01-31-69	21.18
1916	01-06-16	20.60		1974	01-23-74	20.85
1918	02-15-18	20.50		1976	02-20-76	21.43
1919	03-18-19	21.50		1978	03-24-78	23.76
1920	04-23-20	21.50		1979	03-05-79	20.48
1926	04-09-26	20.00		1981	06-14-81	20.89
1930	01-15-30	22.40		1982	03-17-82	25.93
1936	12-27-36	21.00		1985	02-27-85	24.55
1943	05-19-43	22.24		1989	06-05-89	20.90
1944	04-12-44	20.82		1990	02-24-90	20.52
1950	02-16-50	21.15		1991	01-01-91	24.08
1959	02-12-59	21.30				
1966	02-10-66	21.23				
				Total	28 years	

Summary

Annual high water stage by month 1907 - 1991 = 84 yrs.

No. Events	No. Events	No. Events
Jan 9	May 6	Sep 0
Feb 18	Jun 7	Oct 0
Mar 20	Jul 1	Nov 0
Apr 15	Aug 0	Dec 8
Total		84 years

Minor Floods (15 ft. to 19 ft.)

Water Year	Date	Gage Height(Ft.)		Water Year	Date	Gage Height(Ft.)
1907	12-30-07	18.80		1956	03-02-56	17.50
1910	03-04-10	17.50		1958	06-14-58	15.20
1914	05-13-14	18.70		1960	02-11-60	17.20
1917	04-06-17	18.60		1961	04-28-61	18.58
1921	03-29-21	16.80		1962	03-23-62	16.00
1927	12-03-27	17.80		1963	03-09-63	15.86
1928	02-16-28	14.00		1964	04-22-64	15.52
1929	12-18-29	16.50		1965	02-11-65	16.15
1932	01-18-32	15.10		1970	04-21-70	16.43
1933	05-12-33	17.20		1971	02-21-71	16.11
1937	01-18-37	17.80		1972	04-24-72	17.23
1938	04-11-38	18.50		1973	03-19-73	15.71
1939	03-14-39	18.10		1975	02-26-75	16.60
1942	12-29-42	16.50		1977	12-31-77	18.34
1945	05-18-45	17.40		1980	06-04-80	16.70
1947	01-04-47	17.00		1983	05-03-83	18.65
1948	03-23-48	17.30		1984	02-14-84	18.10
1949	02-17-49	18.30		1986	07-16-86	18.68
1952	01-28-52	18.20		1988	04-07-88	17.20
1953	03-04-53	15.30				
1954	01-15-54	16.50				
1955	03-06-55	18.00				
				Total		41 years

Open Emergency Operation Center (E.O.C.) at 19 ft.
Moderate Floods 19 ft. to 20 ft.

Water Year	Date	Gage Height(Ft.)		Water Year	Date	Gage Height(Ft.)
1909	02-25-09	19.70				
1922	04-01-22	19.40				
1923	03-17-23	19.30				
1924	03-31-24	19.20				
1925	03-15-25	19.10				
1957	04-11-57	19.20				
Total				7 years		

MAUMEE RIVER AT FORT WAYNE
OFFICIAL FLOOD STAGE 15 FT.
HIGHEST GAGE HEIGHT PER YEAR

Water Year	Date	Gage Height(Ft.)		Water Year	Date	Gage Height(Ft.)
1980	06-04-80	16.70				
1981	06-14-81	20.89				
1982	03-17-82	25.93				
1983	05-03-83	18.65				
1984	02-14-84	18.10				
1985	02-27-85	24.55				
1986	07-16-86	18.68				
1987	12-16-87	13.70				
1988	04-07-88	17.20				
1989	06-05-89	20.90				
1990	02-24-90	20.52				
1991	01-01-91	24.08				

during the past 84 years, there were only eight (8) years that the Maumee River did not reach official flood stage of 15 ft. They were:

Water Year	Date	Gage Height(Ft.)
1911	04-21-11	14.60
1928	02-16-28	14.00
1931	04-04-31	6.90
1934	03-31-34	11.70
1935	05-07-35	12.80
1941	06-14-41	7.30
1946	06-14-46	13.70
1987	12-16-87	13.70

Appendix 3

REPETITIVE LOSS PROPERTY ELEVATIONS

Street	# of properties	elevation
<u>Spy Run Avenue Area</u>		
Anderson Ave.	1	754'
N. Clinton St.	1	753'
Elizabeth St.	1	755'
Lawton Pl.	1	755'
Nussbaum Ave.	3	753'
Prospect Ave.	2	752'
	1	754'
Riverside Ave.	3	754'
Ruth St.	1	753'
Spy Run Ave.	3	755'
Tennessee Ave.	1	754'
Wagner St.	1	752'
 <u>Eastbrook/Westbrook Area</u>		
Eastbrook Dr.	1	756'
	1	757'
	1	759'
 <u>"Thumb" Area</u>		
Clair St.	1	754'
S. Clinton St.	3	756'
W. Superior St.	2	755'
 <u>Ross/Michaels Area</u>		
Ross Ave.	1	755'
*1 W. Superior St.	2	755'
Van Buren St.	1	755'
 <u>Nebraska Area</u>		
W. Main St.	1	757'
Mechanic St.	1	755'
Perry Ave.	2	756'

Jefferson Blvd./Junk Ditch

W. Jefferson Blvd.	1	756'
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Fillmore Area

Fillmore St.	1	754'
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Vesey/Gruber Area

Vesey Ave.	1	760'
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Foster Park Area

Riverway Dr.	1	760'
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Belle Vista Area

Orchard Ln.	1	762'
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Fairfield/Tillman Area

*2 Fairfield Ave.	1	768'
E. Tillman Rd.	1	763'
W. Tillman Rd.	1	763'

Dwenger Area

Glasgow Ave.	1	750'
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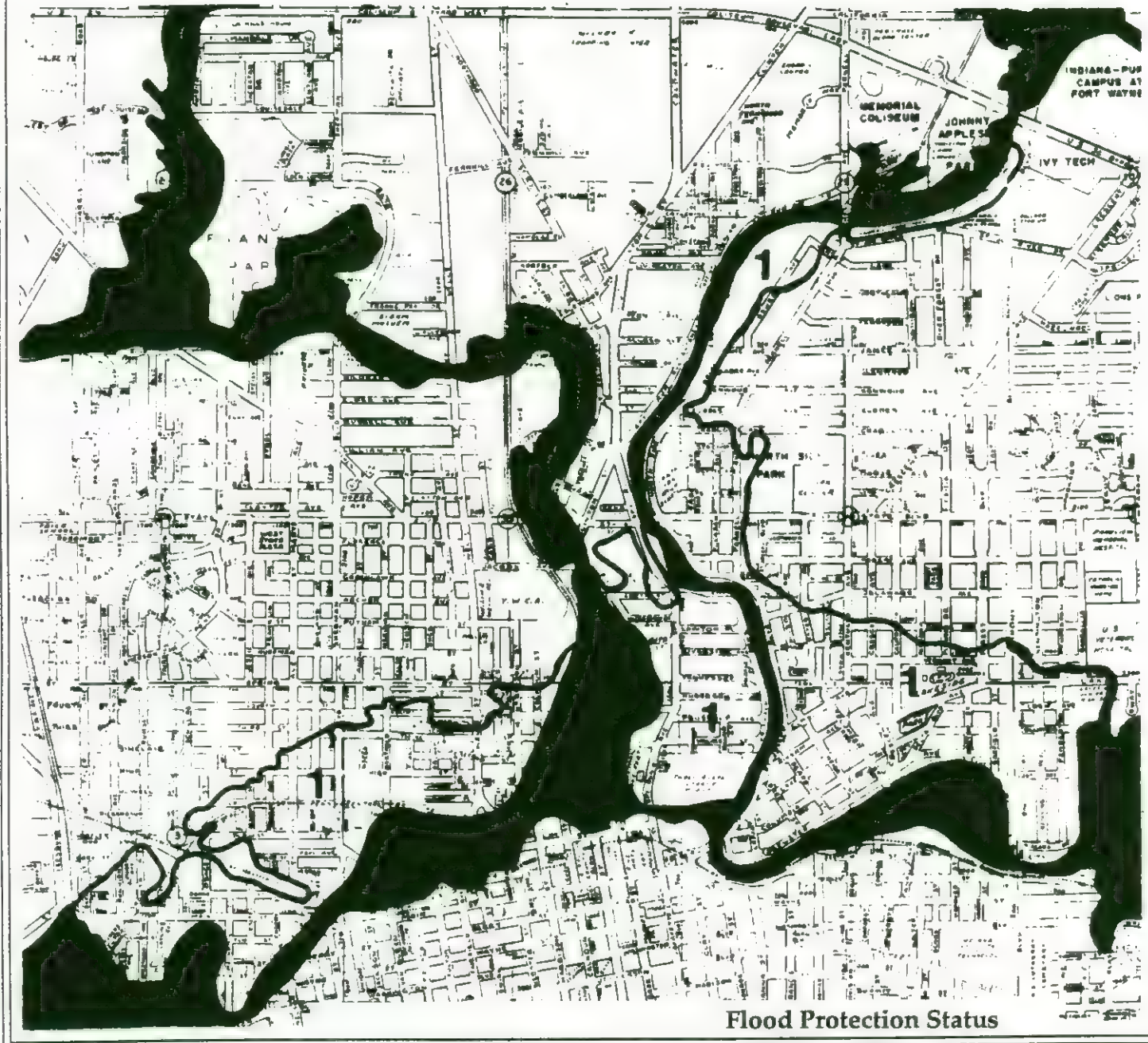
<u>Bluffton Rd.</u>	1	763'
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<u>Northcrest Dr.</u>	1	elevation unavailable
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*1 One repetitive loss property on W. Superior St. no longer exists. The structure was razed and the lot remains vacant.

*2 The repetitive loss property on Fairfield St. receives flooding only in its underground parking facility. The remainder of the structure has never been flooded.

Flood Protected Areas



1 FLOOD PROTECTED AREAS

Currently protected relative to the severity of the flood.

To be protected up to the 100 year flood w/3' freeboard upon completion of Army Corp of Engineers diking project.

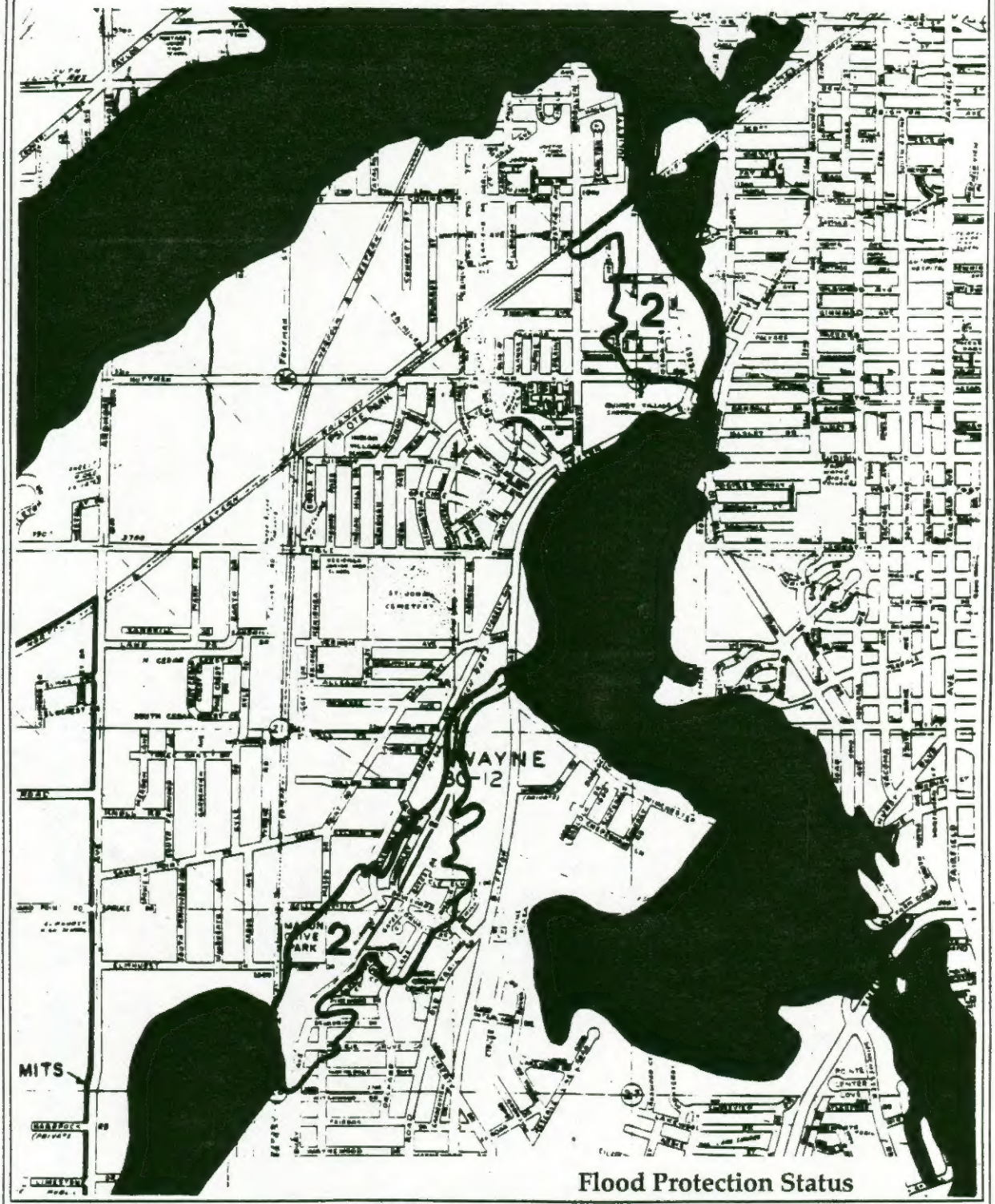
FLOODPLAIN AREAS

Currently unprotected from future floods.

To be left unprotected from future floods under current flood protection improvement projects.

NOTE: The boundaries of the areas depicted on this map are only representative.
The official flood map is to be used for precise boundary location.

Partially Protected Floodplain Areas



2 PARTIALLY PROTECTED FLOODPLAIN AREAS

Currently protected relative to the severity of the flood.

To be protected an additional 1.5 feet, relative to the severity of the flood event, at the completion of the Maumee River widening project.



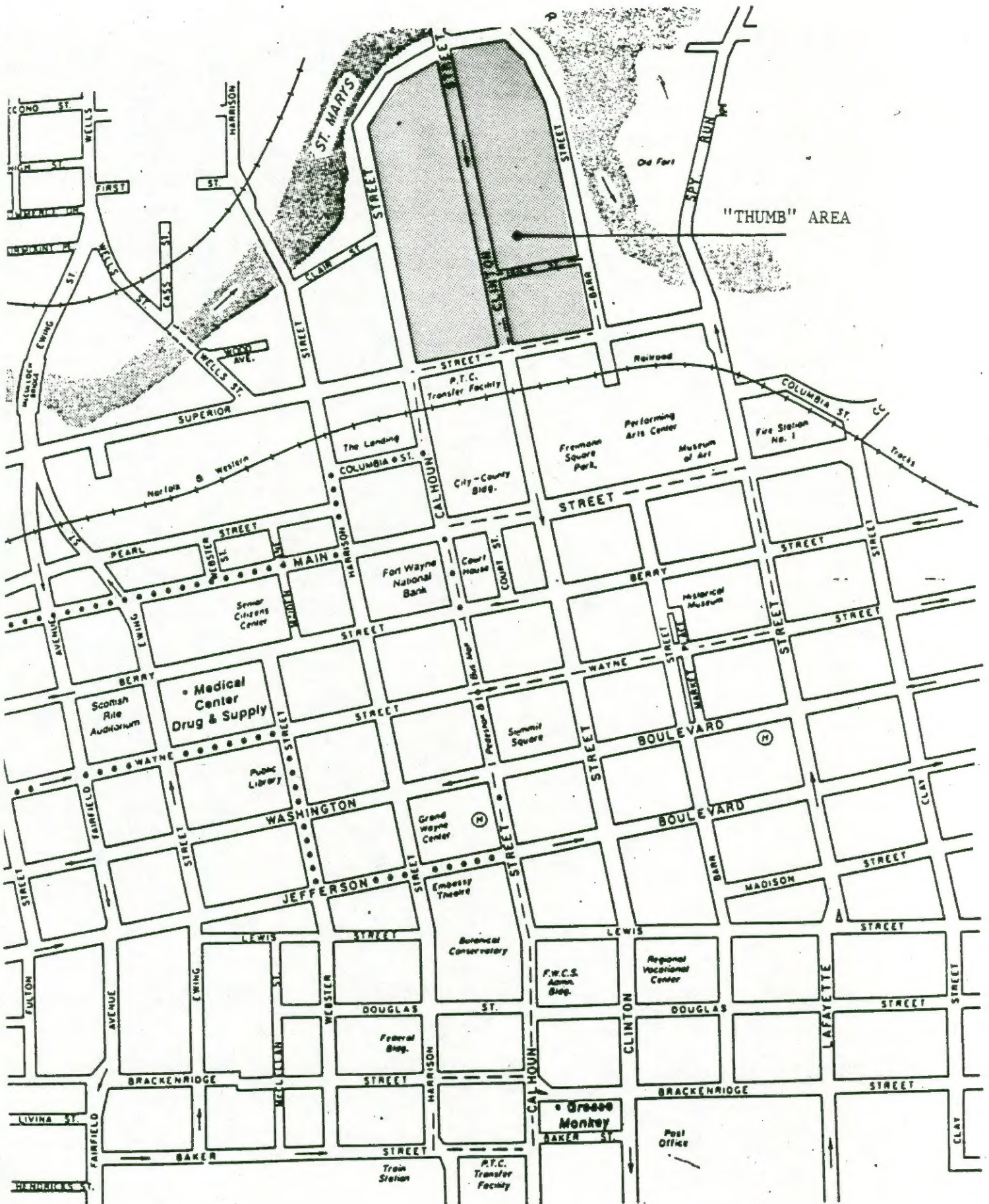
FLOODPLAIN AREAS

Currently unprotected from future floods.

To be left unprotected from future floods under current flood protection improvement projects.

NOTE: The boundaries of the areas depicted on this map are only representative.
The official flood map is to be used for precise boundary location.

Appendix 6



REFERENCES

Federal Emergency Management Agency. Flood Insurance Study, Allen County, Indiana and Incorporated Areas. September, 1990.

Federal Emergency Management Agency. National Flood Insurance Program, Community Rating System, Coordinator's Manual. Washington, D.C., October, 1990.

